BTeV Web Design document

November 29, 2001

1 Introduction

The charge to the BTeV Web Design working group was as follows:

> BTeV has from its inception made use of the WorldWide Web to communicate within the collaboration and to the public. However, as we enter the next phase of our activity, we need to revisit the organization of the website. In particular, we must use it to expand our effort to present BTeV to the public, to the HEP community, to DOE and NSF and international funding agencies, and to provide a platform for educational outreach. We must also provide a sound framework to support our working groups in the accomplishment of their new tasks, which include developing the full technical design report and cost estimate, completing the R&D and beginning the construction of BTeV. The BTeV World Wide Web Working Group is charged with undertaking a review of the BTeV web site and BTeV web-related practices with the goal of proposing and implementing a reorganization to better support BTeV activities.
> The working group should develop a clear model and organization for the upper levels of the web site, including both publicly accessible and internal parts. It should state clearly the principles of organization in a way that make it obvious how new capabilities and new pages should be added. It should also formulate policies needed to support the proposed model and organization and should recommend an ovesight or administrative structure needed to implement and support the proposal and for keeping it consistent with its newly-stated principles. It should identify any services, tools, programs, scripts, etc which would help promote the use of the web. The group should, with the help of others in the collaboration, implement a prototype of the new organization and develop a plan for migration from our existing structure to the new one.
> Issues that should be addressed include, but are certainly not restricted to:
>
> 1. The look and feel of the web pages. How uniform should they be and down to what level? What kinds of access control should be in place on restricted pages?
> 2. What guidelines should exist for public postings and who should control/review the content?
> 3. What services should be provided through the web to the collaboration?
> 4. What policies should govern the location of original documents between BTeV-maintained websites at Fermilab, BTeV- maintained websites external to Fermilab and non-BTeV websites such as personal websites?
> 5. Where should the official web server be located? Should it be on an FNAL central machine or on one of the clusters managed by BTeV at FNAL? Do we need to have it in AFS space?
> 6. How will we guarantee that web pages at Fermilab conform to the rules imposed on websites by the laboratory?

The committee has held several meetings and many email discussions. The resulting consensus as far as BTeV web pages is described below in several sections.

2 Site structure

The structure of the major components of the first couple of levels has been mapped out. In the current model, the top page provides links to General public pages, HEP public pages, Internal pages, and a small number of minor pages such as the BTeV calender and other Fermilab/HEP pages.

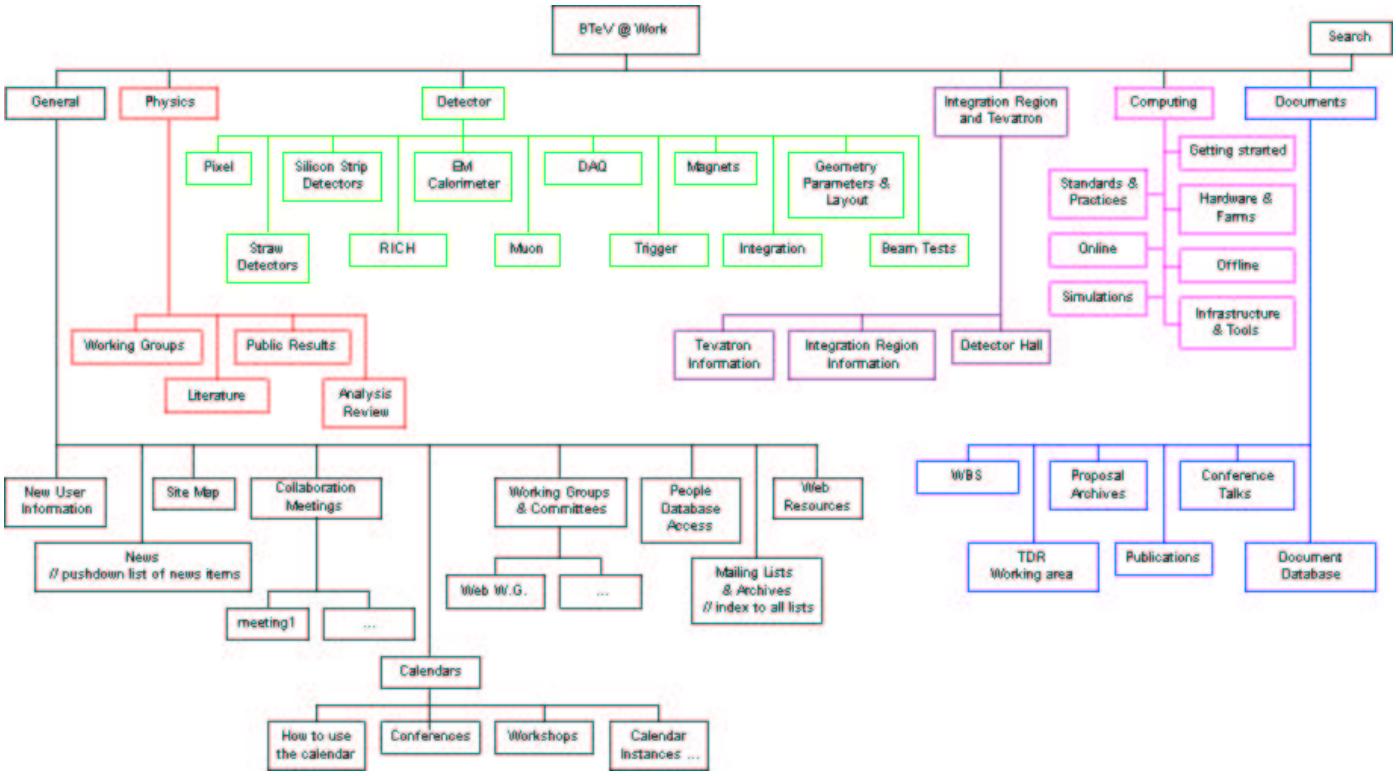

Figure 1: Outline of top level pages and links.

The General public pages are distinct from the rest of the site. They will provide a self-contained virtual tour of the detector and any other cool things people can come up with. The pages will also contain links to other educational locations at Fermilab and beyond.

The HEP public pages will also be crafted for the public. However, these will generally be links to people, documents, and detector subgroups.

The internal pages pose the biggest challenge, structure wise. The first internal page (called BTeV@Work) consists entirely of links to other internal pages. The links are organized into categories (the category headings *are not* links). This top page can be found at: http://www-btev.fnal.gov/atwork/. The structure of the internal web pages (now called BTeV@Work) is also shown in the site map (Figure 1) located at http://www-btev.fnal.gov/atwork/general/sitemap/index.shtml. The internal page will also be equipped to display a few important messages. The links in each category will be complete. That is, all areas of the category will be accessible from the links on the internal page.

The detector specific internal pages are allowed to be of whatever form the webmaster for those pages deems is appropriate.

3 Style

The basic style of the General public and HEP public pages will be determined through consultation with the Fermilab appointed web developer. They will look similar to other web pages which have adopted the "Fermilab standard" as seen at the following web sites: PPD (http://ppd.fnal.gov/), Technical Division (http://www-td.fnal.gov/), CDF (http://www-cdf.fnal.gov/), MINOS (http://www-numi.fnal.gov:8875/), and

BooNE (http://www-boone.fnal.gov/). The detector specific public pages should also try to conform to this standard. Templates are provided at http://www-btev.fnal.gov/atwork/general/webinfo/index.shtml to make this easy.

4 Other coding guidelines

People coding the BTeV pages will be encouraged to use server side includes to allow for more uniform pages. Also, frames should not be used on any of the BTeV internal pages. At the current time, the use of cascading style sheets should be restricted to simple items since some popular browsers (Netscape 4 in particular) do not support them. The templates provided at http://www-btev.fnal.gov/atwork/general/webinfo/index.shtml should be used to ensure consistency. The Fermilab version of these templates also provide information about the page author and the standard Fermilab security notice which is required by all web pages hosted on Fermilab computers.

Currently the top few levels of web pages hosted on the main (Fermilab) site are controlled through CVS. This provides two important features. First, it allows version control of the web pages. Second, it allows remote access without logging into a local Fermilab machine; you automatically get a local copy which you can modify and then commit back to the repository. The web committee feels that this makes it very easy to manage web pages and requires CVS be used in all of the top level areas. However, individual groups may choose to not use CVS in lower level areas. Also, pages hosted on computers outside of Fermilab are clearly not stored in the Fermilab CVS repository. Help on web page coding can be found at http://www-btev.fnal.gov/atwork/general/webinfo/index.shtml

5 Administration

Each page will be the responsibility of one individual. The determination of who this individual is will be a combination of volunteering and recruiting. For the detector specific pages, we anticipate the Level 2 manager will determine who is in charge of each page. Each page should clearly state at the bottom of the page the name and email address of the person in charge of the page. The overall web site and the top-level pages will be the responsibility of a small number (1–3) of people. In addition a periodic review (approximately twice/year) of the BTeV web site will be performed by a small group (3–5) of people who will either make changes directly or send a report to the main administrator(s). This group will attempt to ensure the site is easily navigable, up-to-date, truthful, and meets current Fermilab requirements.

6 Mechanics

The web server machine should be connected via a fast (Fast Ethernet or Gigabit) connection to the Fermilab backbone. It should run Linux and have a large amount of local disk. This machine will probably also serve as a major database server (for the documents and personnel information at least). This machine will be administered by BTeV personnel but supported by and located at the Feynman Computing Center. The disks on this server will be exported to at least one other BTeV machine on which any BTeV member can obtain an account and login from a remote location.

7 Tools

There will be many tools made available on and for the BTeV web page. Some of them are:

- **Calendering program:** We plan to use `MeetingMaker` as our calendering program. With this software we will be able to publish a variety of calenders such as BTeV group meetings, detector group meetings, other meetings of interest (*e.g.* CLEO or FOCUS), and physics conferences. These "published" calenders will be read-only and some subset of them will also be available from the public pages. Software will also be available to modify these calenders. We anticipate each interested University group could obtain a license from Fermilab ($100). This provides software which can run directly on Windows or via Java on any web browser. The software can be used to perform many tasks involved in meeting scheduling.
- **Document database:** The document database will be online soon. It will serve as the primary repository for BTeV documents. The user interface will be simple to use. It will store all of the documents locally, unlike the current system. It will also allow more powerful searching. It will allow multiple formats of the same content as well as multiple files of differing content for the same document (such as a collection of web pages). We will also have some pages with standard search parameters to display, for instance, conference talks, published documents, and group meeting talks.
- **Personnel database:** This database (by Dario) will allow collaborators to keep their information current including email addresses, physical addresses, phone numbers, etc. There will also be a way to define public/private information so this database can be used to generate information for web pages in the public and internal areas.
- **Mailing lists:** We strongly encourage, and support the use of, the Listserv program which is run by Fermilab. This program allows for easy list management and powerful searching/listing of archived mail. We will be deprecating the use of HyperMail as all of the features of HyperMail are available in Listserv which is supported by Fermilab.
- **Site search engine:** We will implement a way to search the BTeV web pages. This search engine will search a database which will be updated once a night (or more often if circumstances warrant/allow). Specifics and implementation remain to be worked out.
- **Broken link checker:** Fermilab has a broken link checker at http://projects.fnal.gov/check.html which has obvious uses for the main administrator (N.B. this can only be used by a client running on a Fermilab machine). There is also a powerful HTML and link checker available at http://validator.w3.org/.
- **Backup/mirroring tools:** Still to be worked out